

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013543**Date Inspected:** 27-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** You Qi Guo**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Components**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

**Tower Trial Assembly**

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 005615

**Visual Inspection Testing (VT)**

This QA inspector performed VT of the area previously tested and accepted by ZPMC Quality Control personnel. The member is identified as Tower Component. The identified component and weld designations reviewed are as follows:

**TOWER CROSS BRACING GUSSET**

WD1 – SA349 – 47.6 – E – 3A/B; 4A/B

WD1 – SA349 – 47.6 – N – 3A/B; 4A/B

WD1 – SA349 – 47.6 – S – 3A/B; 4A/B

WD1 – SA349 – 47.6 – W – 3A/B; 4A/B

**Magnetic Particle Testig (MT)**

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The member is identified as

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Tower Component. The weld designation reviewed as follows:

### TOWER CROSS BRACING GUSSET

WD1 – SA349 – 47.6 – E – 3A/B; 4A/B

WD1 – SA349 – 47.6 – N – 3A/B; 4A/B

WD1 – SA349 – 47.6 – S – 3A/B; 4A/B

WD1 – SA349 – 47.6 – W – 3A/B; 4A/B

This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW):

Weld joint # 036 located on base plate to shear plate WD1 – A25B/B between South and West shafts. Welder is identified as 040736. ZPMC Quality Control (QC) Inspector is identified as Xing Shi Shun. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2332 – Tc – P5 – F.

Weld joint # 235 located on base plate to shear plate ED1 – A27B/E between North and East shafts. Welder is identified as 057266. ZPMC Quality Control (QC) Inspector is identified as Wang Chuang Xin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2332 – Tc – P5 – F.

### MEASUREMENTS OF TOWER STRUTS

This QA Inspector carried out the measurements on Tower Struts to check the length, flange to flange distance, stiffener to stiffener distance and as well as fillet weld termination at the cope hole of stiffeners. Measurements were recorded on the data sheet and submitted to the assigned task leader. The identified component designations reviewed are as follows

#### TOWER STRUTS

1. ND1 – A468 – 18M – 2
2. ND1 – A468 – 28M – 2
3. WD1 – A305 – 53M – 3
4. WD1 – A305 – 53M – 4

#### BAY#11

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW):

Weld joint # 73A located on Tower Strut ED1 – STSA4 – 6 – 123M – 1. Welder is identified as 040667. ZPMC Quality Control (QC) Inspector is identified as Mao Bin Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3212 – Tc – U5b – 1.

(See attached photo)

Weld joint # 01A located on East Tower Lift-5 ESD1 – TL5 – 2B/F. Welder is identified as 040690. ZPMC Quality Control (QC) Inspector is identified as Li Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3213 – B – U3b. (See attached photo)

Weld joint # 06B located on Tower Strut ED1 – STSA4 – 6 – 123M – 1. Welder is identified as 040614. ZPMC Quality Control (QC) Inspector is identified as Mao Bin Bin. The welding variables recorded by QC appeared to comply with the WPS – B – T – 3212 – Tc – U5b – 1.

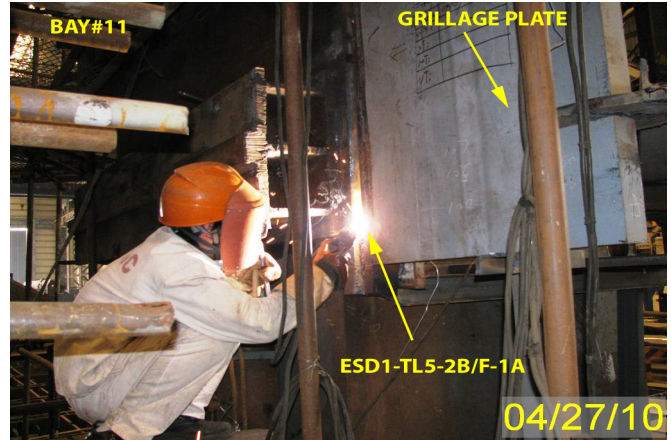
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Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



### Summary of Conversations:

No Relevant Conversations.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Skyler Guest - 15000422360, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Kumar,Sandeep	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford,William	QA Reviewer

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